Rule 1.126

AMENDMENTS TO THE CLAIMS

Claim 1 (canceled)

Claim 2 (currently amended): A robotic surgical device comprising:

an elongated body;

a plurality of robotic arms extendable from a distal portion of said elongated body, wherein at least one of said robotic arms comprises two or more joints; and

~~The robotic surgical device of claim 1 further comprising:~~

an image detector positioned at said distal portion of the ~~said~~ elongated body.

Claim 3 (currently amended): The robotic surgical device of ~~claim 1~~ claim 2 wherein said robotic arms are housed within said distal portion of said elongated body and each at least one of said robotic arms is further configured for deployment through a distal end of said elongated body.

Claim 4 (currently amended): The robotic surgical device of ~~claim 1~~ claim 2 wherein at least ~~one~~ two of said robotic arms ~~is~~ are housed within ~~a separate chamber~~ separate chambers located within said distal portion of said elongated body and each of said chambers has a port located at a distal end of said elongated body for deployment of said robotic arm.

Claim 5 (currently amended): The robotic surgical device of ~~claim 1~~ claim 2 wherein at least one of said robotic arms further comprises a surgical tool attached to a distal end of said robotic arm.

Claim 6 (currently amended): A robotic surgical device comprising:

an elongated body;

a plurality of robotic arms extendable from a distal portion of said elongated body, wherein at least one of said robotic arms comprises two or more joints; and

~~The robotic surgical device of claim 1~~ wherein at ~~lease~~ least two of said robotic arms comprise a rear-arm with a proximal end connected to said elongated body through a first joint, and a forearm connected to a distal end of said rear-arm through a second joint, wherein said first joint permits a distal end of said rear-arms to expand radially from a center axis of said elongated body.

Claim 7 (currently amended): The robotic surgical device of claim 6 wherein said second joint permits a distal end of said forearm to converge toward said central axis of said elongated body while said rear-arm is expanded ~~radially.~~ radially, said plurality of robotic arms are configured for deployment inside a patient's body.

Claim 8 (original): The robotic surgical device of claim 7 wherein each of said robotic arms further comprises a surgical tool attached to a distal end of said robotic arm.

Claim 9 (original): The robotic surgical device of claim 2 wherein said image detector is attached to a distal end of said elongated body.

Claim 10 (currently amended): The robotic surgical device of ~~claim 1~~ claim 2 further comprising:

an image detector attached to one of said robotic arms.

Claim 11 (currently amended): A robotic surgical device for performing minimally invasive surgery comprising:

an elongated tubular body having a plurality of chambers, each of said chambers ~~has~~ having an opening at the distal end of said elongated tubular body; and

a plurality of robotic arms, wherein each of said robotic arms is slideably positioned within one of said chambers, at least one of said robotic arms comprises two or more joints and two or more arm sections, wherein said plurality of robotic arms are configured for deployment within a patient's body.

Claim 12 (original): The robotic surgical device of claim 11 further comprising:

a camera attached to said distal end of said elongated tubular body.

Claim 13 (currently amended): The robotic surgical device of ~~claim 11~~ claim 11 wherein a distal portion of said elongated tubular body has a diameter of 30 millimeter or less.

Claim 14 (original): The robotic surgical device of claim 11 comprising three or more robotic arms.

Claim 15 (currently amended): The robotic surgical device of claim 11 wherein each of said robotic arms comprises at least three arm sections, a fist arm section slidably adapted within one ~~of said~~ chamber, said first arm section connects to a second arm section through a ~~fist~~ first joint, and a second arm section connected to a third arm section through a second joint, wherein said first joint allows said second arm section to rotate relative to said first arm section while at the same time the third arm section can ~~rotates~~ rotate about the second joint in a direction independent of the rotation of said second arm section.

Claim 16 (original): The robotic surgical device of claim 15 further comprising:

a camera attached to said distal end of said elongated tubular body.

Claim 17 (original): The robotic surgical device of claim 16 wherein each of said robotic arms further comprises a surgical tool connected to a distal end of said third arm section.

Claim 18 (original): The robotic surgical device of claim 17 wherein a distal portion of said elongated tubular body has a diameter of 12 millimeter or less, and each of said robotic arms has a diameter of 5 millimeter or less.

Claim 19 (original): The robotic surgical device of claim 16 wherein each of said robotic arms further comprises a third joint having at least three degrees of freedom connected to a distal end of said third arm section, and a surgical tool is connected to said third joint.

Claim 20 (original): The robotic surgical device of claim 19 wherein said robotic arms are configured such that as least two robotic arms can be directed by a user to approach a predefined tissue region from two separate directions.

Claim 21 (canceled)

Claim 22 (currently amended): A method for performing a minimally invasive surgical procedure comprising:

inserting a distal portion of an elongated robotic surgical device into a patient's body;

deploying a plurality of robotic arms through a distal end of said robotic surgical device into a patient's body; and

~~The method of claim 21 further comprising:~~

operating said robotic arms through visual feedbacks provided by an image detector positioned at a distal end of said robotic surgical device.

Claim 23 (original): The method of claim 22 further comprising:

operating two or more of said robotic arms to dissect tissues within said patients body.

Claim 24 (currently amended): The method of claim ~~21~~ 22 further comprising:

making an incision on said patient's body prior to inserting said distal section of said elongated device into said patients body through said incision, wherein said incision has a width of less than thirty millimeters.

Claim 25 (currently amended): A method for performing a minimally invasive surgical procedure comprising:

inserting a distal portion of an elongated robotic surgical device into a patient's body;

deploying a plurality of robotic arms through a distal end of said robotic surgical device into a patient's body; and

~~The method of claim 21~~ wherein each of said robotic arms comprises two or more joints, two or more arm sections, at least one of said arm sections being axially rotatable.

Claim 26 (currently amended): The method of claim ~~21~~ 22 wherein each of said robotic arms comprises a rear-arm connected to said distal section of said robotic device through a shoulder joint, and a forearm connected to said rear-arm through an elbow joint.

Claim 27 (currently amended): A method for performing a minimally invasive surgical procedure comprising:

inserting a distal portion of an elongated robotic surgical device into a patient's body;

deploying a plurality of robotic arms through a distal end of said robotic surgical device;

operating said robotic arms through visual feedbacks provided by an image detector positioned at a distal end of said robotic surgical device;

operating two or more of said robotic arms to dissect tissues within said patients body, wherein each of said robotic arms comprises a rear-arm connected to said distal section of said robotic device through a shoulder joint, and a forearm connected to said rear-arm through an elbow joint; and

~~The method of claim 23 further comprising the step of:~~

rotating said rear-arm away from a ~~central a~~ central axis of said elongated robotic surgical device while at the same time rotating said forearm toward said central axis.

Claim 28 (currently amended): The method of claim ~~21~~ 22 further comprising the step of:

maneuvering said robotic arms to detach said patient's gallbladder from tissues surrounding said gallbladder.

Claim 29 (currently amended): The method of claim ~~21~~ 27 further comprising the step of:

maneuvering at least two of said robotic arms simultaneously in a coordinated manner inside said patient's body.

Claim 30 (new): The robotic surgical device of claim 6 further comprising:

an image detector positioned at said distal portion of the elongated body.

Claim 31 (new): The robotic surgical device of claim 7 further comprising:

an image detector positioned at a distal end of the elongated body.

Claim 32 (new): The robotic surgical device of claim 2 wherein each of said plurality of robotic arms being capable of axial rotation.

Claim 33 (new): The robotic surgical device of claim 6 wherein said forearm being configured for axial rotation.

Claim ~~33~~ 34 (new): The robotic surgical device of claim 7 wherein said forearm and rear-arm being configured for axial rotation.

Claim ~~34~~ 35 (new): The robotic surgical device of claim 15 wherein said second and third arm sections each being adapted to support axial rotation.

Claim ~~35~~ 36 (new): The method of claim 27 further comprising the step of:

rotating said forearm axially.

Claim ~~36~~ 37 (new): The method of claim 35 further comprising the step of:

rotating said rear-arm axially.

Claim ~~37~~ 38 (new): The method of claim 27 further comprising the step of:

illuminating a region distal of the robotic surgical device with a LED.

Claim ~~38~~ 39 (new): The method of claim 27 further comprising the step of:

operating one of said plurality of robotic arms to carry a surgical supply;

Claim ~~39~~ 40 (new): The method of claim 27 wherein one of said plurality of robotic arms comprises a coagulator connected to a distal end of the robotic arm.

Claim ~~40~~ 41 (new): The robotic surgical device of claim 2 wherein each of said plurality of robotic arms comprises a rear-arm coupled to said distal portion of said elongated body through a shoulder joint, and a forearm connected to said rear-arm through an elbow joint, each of said robotic arm is further configured such that said rear-arm can be rotated away from a central axis of said elongated body while at the same time said forearm is being rotated toward said central axis.